

IN THE CLAIMS:

Please cancel Claims 1-39 without prejudice to or disclaimer of the subject matter contained therein.

Please add the following new claims.

40. (New) A method for providing location based services in a wireless network comprising the steps of:

receiving, on a network platform in communication with a subscriber using a mobile unit via an air interface, a service request requesting information regarding said location based services;

obtaining, on said network platform, location information regarding a location of said mobile unit determined using a network assisted location finding technology, said technology being operative to provide location information regarding said mobile unit based at least in part on a position of the mobile unit in relation to a known location of a stationary ground based network structure;

identifying, on said network platform, first and second service providers and associated first and second service provider information based upon said determined location of said mobile unit;

storing prioritization information relating to a priority for presenting service provider information to a subscriber;

based upon said stored prioritization information, prioritizing said first and second service provider information; and

outputting both said first and second service information on said mobile unit based upon said step of prioritizing.

41. (New) A method as set forth in Claim 40, wherein said prioritization information relates to establishing said priority based on proximity of particular service providers to said mobile unit and said step of prioritizing comprises:

providing said location information in a form suitable for distance determinations;
determining a first distance between said mobile unit and said first service provider;
determining a second distance between said mobile unit and said second service provider;

performing a comparison of said first and said second distance; and
determining a presentation of said first and second service information based upon said comparison.

42. (New) A method as set forth in Claim 40, wherein said prioritization information relates to one of, proximity, financial information, service preference information, and a subscriber usage profile.

43. (New) A method as set forth in Claim 40, wherein said prioritization step further comprises accessing stored subscriber defined prioritization criterion information.

44. (New) A method as set forth in Claim 43, wherein said subscriber defined prioritization criterion information includes preferences of said subscriber relative to said service request.

45. (New) A method as set forth in Claim 40, wherein said network assisted location finding technology is operative for analyzing signals communicated between said network platform and said mobile unit, and said step of analyzing comprises utilizing one of a cell/sector,

microcell, angle of arrival, time of arrival, and time delay of arrival technology.

46. (New) A method as set forth in Claim 40, wherein said location information regarding said mobile unit is received on said network platform, and said location information originates at least in part from, from location equipment separate from said mobile unit.

47. (New) A method as set forth in Claim 40, wherein location information is received in a first form relating to a topology of said network and said step of identifying comprises converting said location information into a second form and using said converted location information in said second form to locate said first and second service providers.

48. (New) A method as set forth in Claim 40, wherein said identifying step comprises obtaining one of a local condition and a service provider location relative to said location to said mobile unit.

49. (New) A method as set forth in Claim 48, wherein said local condition comprises one of traffic, road, and weather information.

50. (New) A method as set forth in Claim 48, wherein said service location relates to one of food, lodging, store, towing, and service station location.

51. (New) A method as set forth in Claim 40, wherein said step of outputting said information comprises causing an audio signal to be transmitted to said mobile unit.

52. (New) A method as set forth in Claim 40, wherein said step of outputting said information comprises causing display information to be transmitted to said mobile unit.

53. (New) A method as set forth in Claim 40, wherein one of said steps of storing and prioritizing is performed on said network platform.

54. (New) A method as set forth in Claim 40, wherein said mobile unit comprises a standard mobile telephone free from any integrated equipment dedicated to location determination

and said technology is operative for identifying said location of said mobile unit based on radio frequency transmissions from the mobile unit, wherein location based services are provided to said standard mobile telephone from said integrated location determination equipment.

55. (New) A method as set forth in Claim 40, wherein said network platform comprises a mobile telephone network platform associated with a mobile telephone network switch and said step of receiving comprises receiving a network message transmitted to said network platform from said switch.

56. (New) A method for use in providing location based services to a communications network user in a wireless network, comprising the steps of:

receiving, on a network platform in communication with a mobile unit via an air interface, a service request requesting information regarding said location based services;

obtaining location information regarding a location of said mobile unit determined using a network assisted location finding technology, said technology being operative to provide location information regarding said mobile unit based at least in part on a position of the mobile unit in relation to a known location of a stationary ground based network structure;

identifying, on said network platform, first and second service providers and associated first and second service provider information based upon said location information of said mobile unit;

providing said location information into a form suitable for distance determinations;

determining the distance of each of said first and second service providers relative to said mobile unit; and

outputting both said first and second information to said mobile unit based upon said step of determining distances.

57. (New) A method as set forth in Claim 56, wherein said network assisted location finding technology is operative for analyzing signals communicated between said network platform and said mobile unit, and said step of analyzing comprises utilizing one of a cell/sector, microcell, angle of arrival, time of arrival, and time delay of arrival technology.

58. (New) A method as set forth in Claim 56, wherein said location information regarding said mobile unit is received on said network platform, and said location information

originates at least in part from, from location equipment separate from said mobile unit.

59. (New) A method as set forth in Claim 56, wherein said prioritization information relates to establishing said priority based on proximity of particular service providers to said mobile unit and said step of prioritizing comprises:

providing said location information in a form suitable for distance determinations;
determining a first distance between said mobile unit and said first service provider;
determining a second distance between said mobile unit and said second service provider;

performing a comparison of said first and said second distance; and

determining a presentation of said first and second service information based upon said comparison.

60. (New) A method as set forth in Claim 56, wherein said mobile unit comprises a standard mobile telephone free from any integrated equipment dedicated to location determination and said technology is operative for identifying said location of said mobile unit based on radio frequency transmissions from the mobile unit, wherein location based services are provided to said standard mobile telephone from said integrated location determination equipment.

61. (New) A method as set forth in Claim 56, wherein said network platform comprises a mobile telephone network platform associated with a mobile telephone network switch and said step of receiving comprises receiving a network message transmitted to said network platform from said switch.

62. (New) A method for use in providing location based services to a subscriber of a wireless network, wherein network location information is available within an area of the network based on a network assisted location finding technology, said network assisted location finding technology being operative for determining the location of said wireless transceiver of a subscriber within said area of the network based at least in part on a relationship between a location of the wireless transceiver and a known location of a fixed network structure in said area of the network, said method comprising the steps of:

receiving first location information regarding said wireless unit from a first location finding system for locating wireless units within said network;

receiving second location information regarding said wireless unit from a second location finding system, different from said first location finding system, for locating wireless units within said network, wherein at least one of said first location information and said second location information is based on said fixed network structure;

determining a location of said wireless transceiver by accessing a database that includes said first location information from said first location finding system and said second location information from said second location finding system;

identifying at least one service provider and associated at least one service provider information based upon the determined location of said wireless transceiver; and

transmitting said at least one service provider information to said wireless unit, wherein said wireless unit is used to provide to the subscriber the at least one service provider information based on a current wireless unit location.

63. (New) A method as set forth in claim 55, wherein said location of said wireless transceiver is determined by using said first location information from said first location finding system and said second location information from said second location finding system.

64. (New) A method as set forth in Claim 56, wherein said determining step comprises triangulation analysis.

65. (New) A method as set forth in Claim 56, wherein said determining step comprises a point in a polygon analysis.

66. (New) A method as set forth in Claim 55, further comprising the step of obtaining said current mobile unit location by selecting one of first location information and said second location information.

67. (New) A method for providing location based services in a wireless network comprising the steps of:

receiving, on a network platform in communication with a subscriber using a mobile unit via an air interface, a service request requesting information regarding said location based services;

obtaining, on said network platform, location information regarding a location of said mobile unit determined using a network assisted location finding technology, said technology being operative to provide location information regarding said mobile unit based at least in part on a position of the mobile unit in relation to a known location of a stationary ground based network structure, and wherein said location information regarding said mobile unit is received on said network platform, and said location information originates at least in part from, from location equipment separate from said mobile unit;

converting said location information into a second form;

identifying, on said network platform, utilizing said converted location information in said second form to locate a first service provider and associated first service provider information based upon said determined location of said mobile unit; and

outputting said first service provider information on said mobile unit.

68. (New) A method as set forth in Claim 67, wherein said converting step converts said location information into a form suitable for distance determinations, and further comprising:

identifying a second service provider and associated second service provider information;

determining a first distance between said mobile unit and said first service provider;
determining a second distance between said mobile unit and said second service provider;

comparing said first and said second distance; and

outputting said first and second service provider based upon said comparing step to said mobile unit.

69. (New) A method as set forth in Claim 67, wherein said prioritization criterion is selected from the group comprising one of the following, financial information, service preference information, subscriber usage profile, and subscriber's willingness to receive complementary service information.

70. (New) A method as set forth in Claim 67, wherein said identifying step comprises obtaining one of a local condition and a service provider location relative to said location to said mobile unit.

71. (New) A method as set forth in Claim 70, wherein said local condition comprises one of traffic, road, and weather information.

72. (New) A method as set forth in Claim 70, wherein said service location relates to one of food, lodging, store, towing, and service station location.

73. (New) A method as set forth in Claim 67, wherein one of said steps of storing and prioritizing is performed on said network platform.

74. (New) A method as set forth in Claim 67, wherein said mobile unit comprises a standard mobile telephone free from any integrated equipment dedicated to location determination and said technology is operative for identifying said location of said mobile unit based on radio frequency transmissions from the mobile unit, wherein location based services are provided to said

standard mobile telephone from said integrated location determination equipment.

75. (New) A method as set forth in Claim 67, wherein said network platform comprises a mobile telephone network platform associated with a mobile telephone network switch and said step of receiving comprises receiving a network message transmitted to said network platform from said switch.

REMARKS

In the parent application, the Examiner cited DeLorme et al. (U.S. Patent Number 5,958,040) and Bhatia (U.S. Patent Number 5,930,699) against the claims as presented therein. Applicant respectfully submits that the claims as presented in this application are patentable as presented over DeLorme and Bhatia.

Independent Claim 40, as presented, is directed to methodology where first and second service information is presented to a subscriber based on stored prioritization information. The claimed subject matter involves using prioritization information to identify multiple service providers for the subscriber of the mobile unit, and then to output information associated with these service providers according to the stored prioritization information. This kind of information is made available in accordance with the claimed invention in a network employing network-assisted location finding technology. Accordingly, such information can be provided even to subscribers having only conventional wireless units such as hand-held phones without independent GPS transceivers or other satellite telemetry equipment, as well as GPS enabled phones.

DeLorme discloses a travel information system that makes use of independent satellite-based location information that determines the location of the mobile unit using GPS technology and then provides that location data to a dedicated TRIPS network node. DeLorme doesn't suggest or teach methodology for reporting service information regarding multiple service providers to a wireless unit where the location of the location of the wireless unit is determined using at least one ground based fixed network structure, i.e. network-assisted location finding technology.

Bhatia discloses a network-based system for address retrieval, wherein a mobile unit is located based upon the cell location (CGI) or location area (LA) of the mobile unit. The Bhatia system selects service providers based upon the CGI or LA of the mobile unit and the CGI and LA of

the service providers. Thus, Bhatia merely performs a comparison of the respective CGI or LA and if there is a match, provides the service provider to the mobile unit. Bhatia does not disclose or teach methodology for prioritizing the service providers based upon a prioritization criterion.

Independent Claim 56, as presented, is directed to methodology where the distance separating each of the multiple service providers from the mobile unit is determined. Thus the claimed subject matter involves expressing the location of the mobile unit and of the service providers in a form suitable for distance determinations, determining the distance between the mobile unit and each of the service locations, prioritizing the service information, and then presenting service information according to the distance determination and the prioritizing criterion.

DeLorme discloses a travel information system that uses GPS satellite telemetry to locate the position of the mobile unit, and then transmit this GPS longitude/latitude data to the dedicated TRIPS network node. Bhatia discloses a network-based system for address retrieval, wherein service providers are provided to the mobile unit based upon whether the service provider is located in the same CGI or LA. Thus, Bhatia is unable to make distance comparisons, as the CGI and LA location identifiers as described by Bhatia are not suitable for distance determinations, but are merely used for matching purposes.


Independent Claim 62 is directed to methodology where at least two location inputs are received from at least two different location determination systems regarding the same mobile unit. The claimed subject matter further involves determining the location of the mobile unit by accessing a database including the two location inputs and providing service information at the mobile unit based thereon. DeLorme discloses using GPS satellite telemetry to locate the mobile unit, and does not disclose using ground based fixed network structures, such as antennae's or other location information to determine the location of the mobile unit. Bhatia discloses identifying the CGI or LA of the mobile unit and does not disclose the use of multiple location finding systems as claimed.

Independent Claim 67 is directed to methodology where location information, determined using network-assisted technology, is received from a network platform that is separate from a mobile unit and then converted into a second format to locate the service providers. DeLorme discloses using GPS satellite telemetry to locate the mobile unit, and then having the mobile unit provide the location information to the dedicated TRIPS network node. Bhatia, discloses identifying the CGI or LA of the mobile unit. Neither DeLorme nor Bhatia discloses converting the location information into a second format and then using this second format to locate service providers.

To summarize, the Bhatia patent provides location-based services in a network based only on the CGI or LA of the mobile unit. The DeLorme patent provides services based on coordinate information, travel direction, and speed information that is obtained from an independent GPS system. In addition, the DeLorme system involves a dedicated TRIPS network node for transaction processing. DeLorme does not disclose structure associated with network-assisted location finding technology. Accordingly, neither Bhatia nor DeLorme discloses or suggests a method providing, in a system using a network assisted location finding technology, prioritized service provider information, distance based service provider information, location based services based on accessing a database including inputs from multiple location finding systems.

Respectfully submitted,

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